

Salud America!

The Robert Wood Johnson Foundation Research
Network to Prevent Obesity Among Latino Children



RESEARCH REVIEW

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Making Physical Activity a Daily Experience for Latino Youth

Abstract

Latino children in underserved communities often have limited opportunities for physical activity due to the inadequate access to active spaces, such as trails, parks, and recreation facilities. Several initiatives have sought to promote physical activity by increasing access to public recreational facilities, such as school gymnasiums, athletic fields and playgrounds. However, concerns about liability, staffing, maintenance and costs often hinder these efforts. Formal contracts for the shared use of facilities, called shared use agreements (SUAs), can overcome some of these challenges. SUAs have been successful in some areas of the country, but

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understanding the barriers and solutions to creating SUAs is necessary for developing and implementing these agreements on a wider scale.

Proximity to recreation sites and other characteristics of the local built environment also influence youths' physical activity levels in underserved communities, as children are less likely to use recreation sites that they perceive to be inaccessible or unsafe. For this reason, improving neighborhood infrastructure, by repairing sidewalks or installing separated bike paths, is another important strategy for promoting physical activity among Latino children because such improvements could help increase accessibility and promote active transport to schools, parks and other recreation sites.

This research review summarizes the current literature on the implementation of SUAs, improvements to the built environment, and marketing campaigns to increase physical activity among Latino children in underserved communities.

Introduction

Nearly 40 percent of U.S. Latino youths ages 2-19 are overweight or obese compared with 28.5 percent of non-Latino white youths.¹ Physical activity is important for good health, physical and cognitive growth and development, and maintaining a healthy weight.²

However, Latino children in underserved communities often have limited opportunities for physical activity.^{3,4} In a national survey conducted by the U.S. Census Bureau, fewer Latino (70%) than white (82.5%) respondents described their neighborhoods as having safe places for children to play.⁵ A study conducted in Southern California found that children of racial/ethnic minorities living in poverty have less access to parks and physical activity sites than children living in more advantaged neighborhoods.⁴ Addressing these disparities by providing sufficient access to parks and recreation facilities may help Latino children become more physically active, maintain a healthy weight, and have better overall health through childhood and into adulthood.⁶⁻¹⁰

Because low-income neighborhoods generally have few parks and recreation sites, school facilities can provide safe areas for children to play outside of regular school hours. Several objectives, such as those developed by Healthy People 2020 and the American Heart Association are aimed at increasing access to school facilities and other public properties, and research suggests that more progress is needed toward these goals.¹¹⁻¹³ Shared use agreements (SUAs) are formal contracts between entities, usually a school and a city, county, sports league, or other activity provider, that outline the terms and conditions for the shared use of public property or facilities.^{14,15}

Improvements to the built environment—man-made features in the community, such as sidewalks, streets, buildings, parks, and playgrounds—that increase active transport in the community (e.g., repairing sidewalks and installing street lights and

Fewer Latinos (70%) than whites (82.5%) described having neighborhoods with safe places for kids to play.

protected bicycle paths and facilities) may encourage Latino families and children to use schools, parks and other recreation sites for physical activity.¹⁶

This research review summarizes the current literature on the implementation of SUAs, improvements to the built environment, and marketing campaigns to increase physical activity among Latino children in underserved communities.

Methodology

For this comprehensive research review, electronic searches of PubMed, Google Scholar and government and organization websites were performed to identify literature that was relevant to the implementation of SUAs and improvements to the built environment to increase physical activity among Latino children, defined as individuals younger than 18 years of age.¹⁷ Combinations of the following keywords and Medical Subject Headings (MeSH) terms were used: “Latino,” “built environment,” “physical activity spaces,” “physical activity environment,” “playground,” “park,” “parks and recreation,” “walking path,” “bike path,” “bike lane,” “recreational facility,” “street-scale improvement,” “shared use agreement,” “joint use agreement,” “funding,” “maintenance,” “safety,” “security,” “Hispanic Americans”[Mesh], “Mexican Americans”[Mesh], “Child”[Mesh], “Adolescent”[Mesh], “Motor Activity”[Mesh], “Play and Playthings”[Mesh], “Recreation”[Mesh], “Safety”[Mesh], “Schools”[Mesh], “Transportation”[Mesh], “Community-Based Participatory Research”[Mesh], “Community Networks”[Mesh], “Community Health Planning”[Mesh], “Policy”[Mesh], “Public Policy”[Mesh], “Policy Making”[Mesh], “Health Policy”[Mesh], “Social Marketing”[Mesh].

Included in this review were studies, policy statements and legislation published between January 2000 and February 2015 that address childhood obesity, physical activity, schools, parks, recreation facilities, SUAs, and the built environment in underserved and Latino communities. Exclusion criteria included articles written in non-English language, studies conducted outside the United States, narrative reviews and editorials. Some case studies and organizational reports were included as related examples of published articles. Titles and abstracts were reviewed for relevance and inclusion/exclusion criteria. Full text was obtained for relevant articles meeting the inclusion criteria. Additional literature was found through hand searches of the bibliographies of articles captured through the initial electronic searches. All findings were reported, including those that were contradictory.

The literature identified for this review is comprised primarily of survey-based research (interviews and questionnaires) and reports that were not in the scientific literature. Although some of the surveys had low response rates, available data provide useful considerations and strategies for increasing community access to physical activity facilities. The literature on SUAs in Latino communities was comprised primarily of case studies that did not formally analyze the effectiveness of SUAs on increasing physical activity levels among Latino children. However, SUAs are highly relevant to Latino communities, and information on the challenges and

solutions to creating the SUAs may be helpful for communities that are interesting in establishing a SUA.

Key Research Results

- Latino children living in underserved communities in the United States have limited access to physical activity sites. Increasing access to physical activity sites may increase physical activity among Latino children in these communities.
- Shared use agreements (SUAs) can increase opportunities for physical activity in communities. Although national data suggest that limited progress has been made to share school recreational facilities with community members, some Latino communities have implemented SUAs and succeeded in providing residents with more access to recreational facilities.
- Liability concerns are among the top stated barriers to sharing school physical activity facilities with community members. SUAs, improved statutory liability protections, and increased awareness about the protections afforded to schools may encourage schools to open their facilities to the community during non-school hours.
- Funding and staffing also are among the top barriers to providing access to school physical activity resources for Latino children.
- Increased support and feedback from all stakeholders may increase the use of SUAs in Latino communities.
- Characteristics of the built environment in neighborhoods, such as the presence and design of separate walking/bicycling paths, parks and recreation facilities and the maintenance and safety of the facilities, may affect how frequently children and families engage in recreation and physical activity. Addressing the environmental factors that hinder active travel and use of physical activity sites may increase physical activity among Latino children.
- Multi-dimensional tools can assess the needs of Latino communities regarding physical activity/recreation facilities and inform efforts to increase the use of facilities among Latino children in underserved communities.
- Social marketing and the use of technology can help to improve physical activity levels among Latino youth.

Studies Supporting Key Research Results

Latino children living in underserved communities in the United States have limited access to physical activity sites. Increasing access to physical activity sites may increase physical activity among Latino children in these communities.

Children in underserved communities often have insufficient access to physical activity sites, such as trails, recreational facilities, and parks.^{18–23} A study investigating the availability of recreational resources in neighborhoods of three diverse areas of the United States—Baltimore city and county, Maryland; Forsyth County, North Carolina; and Manhattan and the Bronx, New York—found that Latino neighborhoods were less likely to have recreational facilities than white

neighborhoods.³ Approximately 81 percent of Latino neighborhoods lack recreational facilities, compared with 38 percent of white neighborhoods, regardless of income levels.

The City Project in Southern California found that children of racial/ethnic minorities living in poverty have less access to parks and physical activity sites than children living in more advantaged neighborhoods.⁴ For example, in Los Angeles County (44.6% Latino), low-income urban districts with high percentages of racial/ethnic minorities had only 0.68 total park acres per 1,000 people, while districts comprised primarily of wealthy, white residents had 1,587 total park acres per 1,000 people. Similar results were found in the other counties studied. National data found that Latino neighborhoods were actually closer to parks but had lower percentages of green space than non-Latino neighborhoods.²⁴

A study in the East Harlem neighborhood in New York City evaluated the association between physical activity resources and physical activity levels among a sample of resident children (66% of whom were Latino).²⁵ More than 50 percent of Latino census blocks (i.e., those that were greater than 75% Latino) and nearly 80 percent of all Latino children in the study had no physical activity resources. The number of resources available was significantly associated with the number of children participating in outdoor unscheduled physical activity. Children living on blocks with fewer resources spent less time being physically active.

A research review by Active Living Research also found that children were more physically active when they had access to community recreation sites.²⁶ Therefore, increasing the number of parks and other recreation facilities in underserved areas may help to promote physical activity among youth living there.^{9,25,27}

The U.S. Department of Health and Human Services (HHS) developed the Healthy People initiative to improve the health of the U.S. population. The initiative involves the development of goals and objectives with 10-year targets. One of the goals for Healthy People 2020 is to increase access to physical activity sites through policies aimed at improving the built environment, by adding sidewalks, bike lanes, trails, and parks, and improving access to physical activity facilities.

Latino communities are aiming to increase opportunities for physical activity by improving access to schools and other sites within the community that can be used for physical activity. The Active Living Logan Square program was developed in an urban Chicago community with a predominantly Latino population (71%).²² Among other community-based goals, the program aimed to create safe, inviting places for physical activity in the community by connecting neighboring communities with an Open Streets model: Four miles of Chicago streets connecting three inner-city communities were temporarily closed to motorized vehicles to allow residents to engage in physical activity. The program was modeled after a program in Bogota, Colombia, called Ciclovía (Spanish for “bike path”). Since the start of the pilot program, more than 10,000 residents from five diverse communities have attended these events. The community’s participation in Open Streets has led to additional

One study found that 81% of Latino neighborhoods lack recreational facilities compared to 38% of white neighborhoods.

pilot programs in Chicago and other cities. In 2013, a number of Open Streets events were held in other Latino communities in Chicago, such as Pilsen (93.5% Latino), Little Village (83% Latino) and Lincoln Square (26.5% Latino). Although Open Streets had attracted many community members in previous years, the program was cancelled in 2014 due to funding cuts.²⁸ Organizers continue to look to the city and private donors for funding for future programs.

Other aspects of the Active Living Logan Square program included installing parks and bike racks at the local schools and developing the Bloomingdale Trail, a “rails-to-trails” project that involves the development of a recreation trail on an old rail line, along with four pocket parks that will serve as access points to the trail. Community residents, including youth leaders from the “After School Matters” program, have been involved in developing the design of the trail and parks, including renaming the trail “The 606” for the zip code prefix that all Chicago communities share.^{29,30} The program is a creative model to improve the safety of the existing environments and facilitate physical activity in communities with many Latino residents. In June 2015, The 606, including 2.7 miles of the Bloomingdale trail and four ground-level parks, opened for resident use.

Shared use agreements (SUAs) can increase opportunities for physical activity in communities. Although national data suggest that limited progress has been made to share school recreational facilities with community members, some Latino communities have implemented SUAs and succeeded in providing residents with more access to recreational facilities.

As mentioned previously, the Healthy People initiative has several goals aimed at improving physical activity. One of the goals for Healthy People 2020 is to increase the access to school physical activity facilities during non-school hours, with a current goal of having 31.7 percent of U.S. schools providing access by 2020.¹¹ The previous target, from Healthy People 2010, was to have 50 percent of schools allowing access by 2010; however, data showed that no progress was being made so the goal was revised.³¹ In fact, fewer schools provided access to their physical activity facilities in 2006 (29%) than the baseline in 2000 (35%), although the difference was not statistically significant.

Before 2010, the School Health Policies and Programs Study (SHPPS) sought to assess the progress made toward the Healthy People 2010 objective by analyzing the proportion of U.S. schools providing access to physical activity spaces and facilities in 2000 and 2006.¹² Among the schools that reported having physical activity facilities, approximately two-thirds provided access to children and adolescents during non-school time for community-sponsored sports activities, but only one-third provided access for community-sponsored classes, lessons, or supervised open gym/free play. These percentages did not change significantly between 2000 and 2006. Urban communities were more likely than non-urban communities to have access to schools for supervised open gym/free play, and high-poverty areas were more likely than low-poverty areas to have access to schools for unsupervised use of outdoor facilities.

Still, some Latino communities have successfully increased access to physical activity facilities through the implementation of SUAs—formal contracts between entities that outline the terms and conditions for sharing public facilities for physical activities. In particular, great strides have been made in the state of California, which is 38.1 percent Latino. In Los Angeles County (47% Latino), the Joint Use Moving People to Play (JUMPP) Task Force was initiated in 2010 to promote physical activity by implementing system and environmental changes, including SUAs with schools.³² The JUMPP Task Force worked with seven schools districts with high childhood obesity burdens and helped establish SUAs at several schools. Data were collected on the effort from 2010-2012. One of the key successes of the SUAs was the implementation of structured physical activity programs for adults and children: Community use of shared-use sites was found to be significantly higher when structured physical activity programs were offered compared with when no program was offered. Shared-use sites offering programs attracted 16 times the amount of community members as sites offering no program. Additionally, adult-focused programs appeared to help attract children to the sites, as parents often brought their children with them to sites during shared-use hours. Overall, among the users of the shared-use sites, Latinos represented the largest group engaging in moderate-to-vigorous physical activity.

Access to structured physical activity programs increased community use of shared-use sites by up to 16 times.

Table 1 (see Appendix 1) provides a snapshot of similar programs elsewhere in California. The challenges each group faced, along with potential solutions, are described in the sections that follow. Understanding barriers and solutions to creating SUAs is necessary for developing and implementing these agreements on a wider scale. Table 2 shows available toolkits and resources for creating SUAs for communities that are interested in establishing them (Appendix 1).

Liability concerns are among the top stated barriers to sharing school physical activity facilities with community members. SUAs, improved statutory liability protections and increased awareness about the protections afforded to schools may encourage schools to open their facilities to the community during non-school hours.

Studies suggest that liability concerns are among the key barriers to providing community access to school physical activity facilities.^{13,33,34} SUAs and other agreements provide liability protection for school districts that open their facilities for public use, but school administrators are often unaware of the protections afforded to them by such agreements.

In a survey sent to 1,714 public schools in underserved communities in 46 states (approximately 30% of which in Latino communities) and completed by personnel from 360 eligible schools (21% response rate), 82.2 percent of respondents indicated that they were somewhat-to-very concerned about the liability associated with recreation- or sport-related injuries occurring on school property during non-school hours.³⁴ Among the schools that did not allow access to school grounds for

recreational purposes, 91 percent stated that liability was somewhat-to-very concerning, and 85.7 percent desired stronger laws to protect schools from liability. Interestingly, only 41 percent of respondents were familiar with laws that limited the liability of public schools in their state. The majority of respondents believed that stronger legislation was needed, regardless of their familiarity with state law or whether their school had been subject to a previous liability claim. Among the schools that reported having formal legal agreements in place for the use of their facilities during non-school hours, only 44.8 percent of respondents perceived the protections to be adequate and only 14.6 percent would agree to sharing their facilities with other groups in the absence of a formal legal agreement. Although the low response rate limits the generalizability of the findings, no demographic differences were found between responder and nonresponder schools.

Although liability is a concern among school administrators, studies have found that schools would be reasonably protected from liability associated with providing facility access to the community.^{35,36} In a systematic review of the legal rules associated with land usage in the 50 states and the District of Columbia, investigators sought to identify the potential liability for schools that provide access to their grounds for recreational activity during non-school hours. Data suggest that public schools in all states are protected by some form of sovereign or governmental immunity, recreational use statutes, or limits on tort damages. Although some liability risk remains in certain circumstances, the investigators concluded that the risks to schools do not outweigh the benefits of providing facility access to children who may be at risk of obesity.³⁵

Other studies have evaluated the protections afforded to schools by recreational user statutes. One review revealed that statutes from 42 states were potentially applicable to schools, although many lacked uniformity and well-defined descriptions of covered activities.³⁶ Among the 42 states, most (82%) statutes used broad terms to define the activities for which schools would not be held liable and none referenced indoor facilities specifically. For example, in states with large Latino populations, language to describe activities for which schools would be protected from liability include “winter sports” (California), “enjoying nature” (Texas), “recreational activities” (New Jersey and New Mexico), and “exercise” (Arizona), which may be difficult to interpret. Only a few states indicate specific activities such as “bicycling” (Colorado, New York, and Texas) and rollerblading or rollerskating (Colorado, New Jersey). Because such broad terminology would require interpretation by the courts, it could potentially expose schools to liability. As such, including uniform and specific provisions for all relevant recreational and physical activities in state laws may better protect schools and encourage them to share their facilities during non-school hours.

These studies demonstrate a need for increased awareness of existing statutory protections afforded to schools and development of future policies that better clarify the terms of these protections (e.g., the specific activities covered under the statutes). All states have some form of immunity that protects public entities from liability and most have some form of statute that allows for use of public facilities by the

Uniformity of specific provisions for relevant recreational and physical activities in state laws may encourage schools to share their facilities during non-school hours.

community; however, not all statutes provide for the joint establishment or shared use of school property/facilities.^{37,38} Recently, lawmakers in Arizona and Ohio enacted legislation that clarifies liability issues and provides greater liability protections to schools that implement SUAs.^{39,40} School districts considering a SUA should become aware of their state laws on shared use. ChangeLab Solutions has compiled related laws in all 50 states (<http://www.changelabsolutions.org/publications/liability-schools-50-states>), although some of the laws may have been updated since the original data were compiled in 2009.

Funding and staffing also are among the top barriers to providing access to school physical activity resources for Latino children.

In a survey of directors of 44 recreation centers in San Diego County (32.5% Latino), 54 percent indicated “inadequate staffing” and 39 percent indicated “funding” as primary barriers to offering physical activity programming for youth.⁴¹ Another survey of school representatives involved in 18 SUAs in Los Angeles County reported that approximately 50 percent of respondents noted staffing issues as a main concern.⁴²

Partnerships through SUAs can overcome these barriers by sharing costs and staffing.⁴³⁻⁴⁵ For example, for the SUA established at the Cajon Valley Union Elementary School District in San Diego (25.6% Latino), each partner who uses school facilities provides their own staffing, supervision, and security, and is responsible for operational costs associated with their programming. The school district is responsible for staff and costs associated with facility maintenance.⁴⁴ Staff turnover was a major challenge for the Healthy High Desert SUA in Adelanto, Calif. (58.3% Latino). To overcome this barrier, the city and school district applied for additional grants and recruited staff with experience and genuine interest in making the SUA work.¹⁴

Increased support and feedback from all stakeholders may increase the use of SUAs in underserved communities.

Despite the challenges associated with establishing SUAs in underserved communities, some barriers may be overcome if all stakeholders have a voice in developing the agreement and its resulting programs. School districts, planners, community members, public health officials and other partners should be involved early in the process to ensure that the needs of all stakeholders are met. To increase participation among the Latino community, language barriers must be considered; for example, bilingual facilitators and Spanish-language materials should be available at all stakeholder meetings.

Several case studies have cited cooperation among stakeholders as the main contributor to the success of a SUA. In a case study of a pilot SUA between the Department of Parks and Recreation (DPR) and an urban high school in Honolulu, Hawaii, increased support of school administrators and feedback from school and

DPR staff, students, and community members facilitated the development of a successful physical activity program in the community. Specific factors were noted as being instrumental in the program's success, including: trust and effective communication among school administration, faculty and DPR staff; willingness of school administrators to accommodate project needs, such as office space, communication systems, storage space for equipment, and administrative assistance; feedback from students, faculty, staff, and community members about the type and timing of activities; and targeted recruitment based on feedback. Although this study involved a high school with a very small Latino population (1.1%), the majority of students enrolled in the school are of ethnic minority background and lower socioeconomic status. Therefore, findings may offer strategies that could be successfully applied in other underserved areas of the country.⁴³

In the Fruitvale neighborhood (46% Latino) of Oakland, Calif., the success of a SUA has been attributed to strong relationships between stakeholders. Public officials, school administrators, and community members have collaborated with the Unity Council, a nonprofit community development agency, to offer evening sports leagues on school grounds for more than 500 youth. Outreach was critical to engaging the community and instilling a sense of ownership in the program.⁴⁴

A program in the Boyle Heights (94% Latino) and Pico-Union (92% Latino) neighborhoods in Los Angeles, Calif., called Joint Use Generating Activity and Recreation (JUGAR), brought together community stakeholders and public agencies to increase access to public space, such as a walking path and sports field, for physical activity. Effective engagement of school administrators and community partners ensured that all stakeholders understood the needs of the community and the terms of the agreement, which led to JUGAR establishing joint use partnerships.¹⁴

Characteristics of the built environment in neighborhoods, such as the presence and design of separate walking/bicycling paths, parks and recreational facilities and the maintenance and safety of the facilities, may affect how frequently children and families engage in recreation and physical activity. Addressing the environmental factors that hinder active travel and use of physical activity sites may increase physical activity among Latino children.

Characteristics of neighborhoods and the built environment—man-made features in the community, such as sidewalks, streets, buildings, parks and playgrounds—may prevent Latino children from using available physical activity sites (Table 3).⁴⁶⁻⁵⁹ These include: availability and accessibility of competitive transport alternatives and infrastructures (e.g., transit, sidewalks, bike lanes; availability of local government and highway funds for sidewalks and bike lanes; frequency of non-motorized transportation (variation by trip purpose and/or trip distance); presence of integration between residential and commercial land use in dense population areas; presence of protective social factors and absence of social disorder; presence of attractions and comforts as well as absence of physical disorder; availability and accessibility of facilities or natural features for activity; availability of local government funds for

Program funding, staffing, partnerships and community outreach are critical to the success of shared use agreements.

parks and recreation facilities; and presence of community-wide campaigns to increase active living.

In a survey of parents and adolescents from three U.S. metropolitan areas (10% of whom were Latino), proximity to home and easy access to the site by walking/biking were significantly associated with more frequent use of the sites by children and adolescents. Higher perceived traffic safety, better pedestrian infrastructure, and low crime were also significantly associated with more frequent walking/biking to a recreation site.⁴⁸

Proximity to schools was also found to be associated with physical activity in a study of 3,451 adolescents (34.1% of whom were Latino) who responded to the 2005 California Health Interview Survey.⁶⁰ Proximity to school was associated with increased active transport to school. Adolescents who lived less than 3,200 meters (about 2 miles) from school were more likely to walk, bike, or skateboard to school than those who lived farther away. The authors recommend building schools near residential areas with the highest concentration of students to encourage more walking and biking to school.

Another study investigated the relationship between the built environment and physical activity in 14 unincorporated settlements, called colonias, in Hidalgo County, Texas.^{61,62} After conducting focus groups with resident children (8 to 13 years of age) researchers found that certain features of the built environment were related to physical activity levels in children. During the focus group sessions, children noted several factors that could improve their levels of physical activity, including the construction of walking areas, parks, sports and recreation areas and basketball courts, installation of swings and street lights, and increased police presence in the area. The children also reported that unpleasant neighborhood conditions, such as trash-filled and muddy streets, bad outdoor odors, dilapidated playgrounds, unleashed dogs, gangs, and speeding cars prohibited them from being active. Data from the street audits of 125 colonia streets found that only 1 percent had sidewalks or crosswalk signs, and only 9 percent had speed bumps. Other features that were uncommon were “Children at Play” signs, shoulders, stop signs, and speed limit signs.

One study assessed the walkability and safety around elementary schools in 73 predominantly poor and Latino neighborhoods in Austin, Texas.⁶³ Although the neighborhoods were found to have an adequate number of sidewalks, the street-level walkability of those sidewalks was low, due to poor visual quality, lack of physical amenities, poor maintenance, and low levels of perceived safety. Other studies report similar findings, that low-income and Latino neighborhoods often lack well-maintained yards, appealing scenery, and historic, cultural or architectural buildings, contributing to poor aesthetic quality.⁶⁴⁻⁶⁶

Neighborhood crime may influence active transport in Latino communities. A study investigating physical activity and outdoor recreation among 390 Latino children in the South Lawndale community of Chicago (83% Latino; 92% Mexican-American),

Proximity to schools is associated with increased physical activity and active transportation.

Kids living in unincorporated communities called ‘colonias’ identified poor conditions of the built environment as barriers to physical activity.

also referred to as Little Village, found that Latino children in the area are often exposed to violent crime in the neighborhood, as a witness and/or victim,⁶⁷ and their fear of crime negatively impacts their levels of physical activity and outdoor recreation. The participants reported decreased use of parks or locations requiring them to cross gang boundaries and less participation in after-dark activities, with some children not participating in any physical activity due to safety concerns. Other research from U.S. urban areas has also documented that Latino children are more likely to live in unsafe areas.⁶³

Improving elements of the built environment, such as neighborhood and park infrastructure, and facilitating safe routes for active travel may help address many of these barriers and promote physical activity among children in underserved communities.

The National Complete Streets Coalition aims to improve the conditions of neighborhood streets for safer use by pedestrians and bicyclists, whereby “communities direct their transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation.” Many states, cities and towns are adopting Complete Streets planning policies.⁶⁸ Nationwide, more than 700 jurisdictions in 30 states, the Commonwealth of Puerto Rico, and the District of Columbia have enacted Complete Streets policies.⁶⁹ Efforts also are underway in heavily Latino communities, such as Santa Ana and Los Angeles, Calif. and Houston, Texas.^{70–72}

The Safe Routes to School (SRTS) National Partnership provides resources for increasing the safety of neighborhood streets to facilitate walking and biking in underserved communities.⁷³ A case study describes the implementation of the SRTS program at Maybury Elementary School in southwest Detroit (approximately 600 students, nearly 90% Latino).¹⁶ During the program planning phase, feedback from parents was sought and “walking audits” were conducted to identify factors that may be inhibiting active transport to school. Improvements in infrastructure were made to address the identified physical barriers, such as decaying sidewalks and poor lighting. Geographic Information System (GIS) maps generated from several forms of computerized geographical data and crime data for the neighborhood were used to identify the safest routes to school, and a walking school bus program, led by parent volunteers, was implemented on those routes, which increased the number of students who walked to school. A recent study of the national SRTS program and the funds distributed between 2005 and 2012 found that schools in urban areas with high Latino populations benefited most from the funds, demonstrating that progress is being made in these underserved communities.⁷⁴

Routine maintenance of existing parks and recreation sites is critical to increasing the use of these sites by community members. A program in the City of Chula Vista (50% Latino) in San Diego County, Calif., engaged community members in assessing the built environment and advocating for change to increase use of neighborhood parks.⁷⁵ Promotoras (Spanish-speaking lay health advisors) collaborated with youth leaders and community members to identify specific

Complete streets policies aim to improve streets for safer use by pedestrians and bicyclists.

environmental barriers to the use of an existing park. Dilapidated fences, overgrown plants, open sewage drains, and lack of bathrooms, drinking fountains, trash and recycle bins, and inadequate lighting were noted as the main barriers to park use. The results of the study were presented at a city council meeting, which prompted several changes to address the barriers. A community survey conducted after the changes were made and the park reopened found that more than 60% of respondents noticed several of the changes. The number of noticed changes was significantly associated with intentions to use the park and using the park for exercise. Program results were credited to the collaboration among the promotoras, youth leaders, community partners, community organizations, and elected officials. Other studies have shown that making improvements to park infrastructure increases park use and physical activity among park users.⁷⁶

Strategies for improving safety at parks and recreational facilities may also help to increase use of these sites. Some parks and recreation departments have successfully improved safety by scheduling park programs later into the evening, keeping parks occupied with people engaging in positive activities to deter undesirable activities. For example, the Summer Night Lights (SNL) program in Los Angeles, Calif. (where 48.1% of residents are Latino) is a violence reduction program aimed at reducing gang-related violence during the summer when gang activity is heightened. During SNL, parks and recreation facilities across Los Angeles remain open until 11 pm and offer increased programming.⁷⁷ Resident teens and young adults at risk of gang involvement are hired and trained to work for the program. Program highlights in 2014 included a 15.4% reduction in the rate of gang-related violence compared with 2013 and participation in Zumba clinics by more than 11,000 participants and sports clinics by more than 10,000 youth participants. Other communities have improved safety by installing high-pitched devices that only teens and young adults can hear to reduce loitering and vandalism at parks where younger children play.^{78,79}

Funding for maintenance and security of parks and recreation facilities is imperative for sustaining or improving their use by the community, yet many states and localities face reduced federal and state funding that has resulted in poor maintenance, staffing cuts and reduced hours of operation and/or closure of existing facilities, with limited to no funding available for improvements to infrastructure or program offerings, despite growing populations. The largest cities in the U.S. report nearly \$6 billion in deferred maintenance costs for parks.⁸⁰ Innovative funding strategies are needed to help communities keep parks open and well maintained and to improve infrastructure and programming. The community itself may be the source of this funding. If community members and organizations are engaged in the design and development of the park and realize the value of the park for the community, such as improvements in quality of life, economic development, and property values, they are more likely to contribute funds.⁸¹ Additionally, if parks are designed to meet the needs and reflect the culture of the specific community, residents of the community will be more determined to see the park succeed and be more willing to fund maintenance and improvement projects. Alternative funding may also be obtained by charging residents for use and/or offering “workreation” opportunities for kids to work at the park in exchange for use of its facilities.⁸¹ Another creative

Improvements to parks and recreational facilities as well as programming offered later into the evening may increase site use and promote community safety.

strategy for fundraising is the National Recreation and Park Association's Fund Your Park, a crowdfunding platform (similar to Kickstarter and indiegogo) that parks and recreation departments can use to attract funding from supporters.⁸²

Multi-dimensional tools can assess the needs of Latino communities regarding physical activity/recreation facilities and inform efforts to increase the use of facilities among Latino children in underserved communities.

Identifying characteristics that make existing recreation facilities successful can inform the planning of future facilities conducive to physical activity. Tools are available for assessing the built environment, but research suggests that current measures need improvement to capture all important factors that influence the use of the built environment in underserved communities.^{49,83-86}

The Physical Activity Resource Assessment (PARA) is a multi-dimensional instrument that rates recreation sites on their features, amenities, and incivilities (e.g., litter, unattended dogs, evidence of substance or alcohol use, vandalism).⁸⁷ A study investigating the utility of the PARA for planning physical activity interventions in two economically disadvantaged urban neighborhoods (62.4% ethnic minorities) in Tampa, Fla., found that collecting qualitative data in addition to PARA data captured issues such as transportation barriers, interest, and convenience that were not captured by the instrument alone.⁸³ To identify all important factors that may influence the use of a recreation facility, the investigators recommend adding qualitative assessments, such as interviews with parent-child pairs, to obtain feedback about other non-physical factors related to the use of the facility.

One research group reported on the utility of multi-dimensional neighborhood profiles as a tool to evaluate the built environment in 12 primarily low-income, urban Latino communities (26% to 79% Latino) in Pima County, Ariz.⁸⁸ The tool incorporated secondary data, including census data and GIS maps; observational assessments with selected portions of existing tools, including the PARA, the Community Health Index and the Americans with Disabilities Act Bus Stop Accessibilities Study; interviews with neighborhood connectors (e.g., community representatives); and community surveys. Although secondary data provided useful objective information on infrastructure and community resources, observational assessments, interviews and surveys were crucial for identifying the actual needs of the community. For example, secondary data indicated the presence of a recreation site, but the observational assessment revealed the accessibility of the site to the public (e.g., opened vs. locked gates), and the community surveys indicated the residents' awareness about the availability of the site.

When gathering community feedback, assessing cultural factors may help to identify characteristics of the built environment or recreation program that would be important to the Latino community and thus persuade them to engage in physical activity. For example, a study surveyed 303 Latinos to assess cultural factors about their outdoor recreation compared with other populations.⁸⁹ Survey results suggested that family, community and personalization were the most valued and influential

If parks are designed to meet the needs and reflect the culture of the community, residents may be more determined to see the park succeed.

cultural factors among Latinos. Therefore, to attract Latinos to outdoor recreation, investigators concluded that programs should include family- and community-based activities that leverage the strong personal relationships among Latinos. Community mentors and leaders could also help to engage residents in the activities.

In Bridgeport, Conn. (41.1% Latino), the Community Stakeholder Park Audit Tool (CPAT) was used by twenty-four adult residents to evaluate community parks. Several associations were found between park attributes and park use among residents that allowed study participants to suggest areas of intervention for improving physical activity areas within the parks, suggesting that the CPAT is a useful tool for evaluating community parks.⁹⁰

Another method of evaluating the opportunities for improving physical activity sites in the community is “Photovoice,” a research method involving the use of cameras by teens and adults to document barriers to physical activity in the community and bring awareness of the issues to the local policymakers, including one application of this method by Latina teens in Connecticut.^{56,57,91} Projects such as these have led to several policy changes in the respective communities, including modifications to the school bus routes to add a stop at the local YMCA and reopening of two city pools.

These studies have important implications for planners of physical activity facilities. Multiple appropriate measures, including feedback from community members, should be incorporated into the assessment of the built environment to better inform decisions about building new environments or improving existing environments in Latino communities. If surveys are used, they should be developed in English and Spanish and pilot-tested to increase the response rate and optimize comprehension among respondents. Marketing the research project to the Latino community may also increase participation.

The Project for Public Spaces offers guidance for community planners on the important issues related to the development of parks and other community spaces. (<http://www.pps.org/>)

Social marketing and the use of technology can help to improve physical activity levels among Latino youth.

Social marketing, a method aimed at changing behaviors that benefit individuals and communities as a whole, has been used to encourage physical activity in children and adults. An example of a successful community-based marketing campaign is VERB, which promoted physical activity among U.S. children ages 9-13 years and four specific racial/ethnic groups, including Latinos.⁹² Participants received appealing messages through VERB-branded radio and TV advertisements with the tag line, “It’s what you do!” For Latinos in particular, the tag line was modified to “Ponte las Pilas,” or “Get going” (the literal translation is “put in your batteries”). The advertisements emphasized family values, had an emotional tone, and were delivered in Spanish by authority figures and media personalities who were well respected in the Latino community. After one year of the program, the Latino group met the goals

for VERB awareness, but the awareness was not translating to increased physical activity. Investigators concluded that the VERB messages needed to reach Latino children through additional outlets to improve physical activity outcomes. After distributing a bilingual schedule planner and increasing marketing to parents, positive associations were observed between exposure to VERB and increased physical activity at the 2-year follow-up. Incorporation of culturally relevant messages was a successful strategy for personalizing the VERB brand to Latinos and the other racial and ethnic subgroups studied. The VERB Summer Scorecard incorporated community-based prevention marketing to develop a summer physical activity program for youth 9 to 13 years of age. Emphasizing the fun in physical activity rather than simply the health benefits helped to encourage physical activity during the summer.⁹³

Technology has also been used to try to improve physical activity in Latino youth. For example, the We Walk app and the Choose Healthier app are reaching residents in cities with large Latino populations. The WeWalk app was created by Estrella Hernandez, a 13-year-old Latina living in San Antonio, Texas (63.2% Latino), who was concerned about obesity and overweight in her city, especially among her peers. Her vision was to create an interactive mobile app, combining active living, healthy eating and gaming. She worked with community members, technology partners and nonprofit organizations to develop the app, which includes walking routes around San Antonio landmarks and other areas of interest and quizzes app users about trivia related to the sites that they visit during their walks. The app is currently being beta tested, but Estrella hopes to obtain additional financing through crowdfunding to further develop the app and make it available for download.⁹⁴ Choose Healthier is another app being developed through a partnership between the nonprofit organization IT'S TIME TEXAS and Dell Children's Medical Center. The app is being targeted initially to residents of Austin, Texas (35.1% Latino), and includes mapped routes for wellness-related activities near the user's location, such as running and cycling clubs, yoga and Zumba classes, and watersports, among others, which are refreshed on a weekly basis to keep users enticed and active. Future development goals are to expand the app to other cities across Texas.

In one social marketing campaign, emphasizing the fun in physical activity, rather than just the health benefits helped encourage physical activity.

Conclusions and Policy Implications

CONCLUSIONS

Latino children in underserved communities have limited opportunities for physical activity because of inadequate access to recreation facilities, unavailable school recreational facilities, and neighborhood characteristics that negatively impact use of these spaces. Many avenues and resources exist to increase access to recreation facilities among Latino children:

- Shared use agreements (SUAs) have been successfully implemented in some predominantly Latino communities. Incorporating the community in developing SUAs, sharing related costs, and solving liability concerns—via improved state

and local policies and increased awareness of existing statutory protections for schools—can further increase public access to school facilities.

- Improving the built environment (e.g., repairing sidewalks, installing separate bike paths and street lights, improve maintenance and safety measures) can address concerns about environmental barriers and improve perceptions of the built environment, potentially increasing levels of physical activity among Latino children in the community.
- Appropriate measures must be used to assess the built environment and ensure that new and existing areas for physical activity meet the specific cultural needs of the Latino community.
- Social media and the use of technology can be used to help change attitudes and behaviors about physical activity among Latino youth.

POLICY IMPLICATIONS

The findings of this review have implications for legislators and other policymakers, school administrators, community members, and others who can influence policies. Efforts should focus on meeting the following needs to increase access to sites and facilities that can provide children with greater opportunities for physical activity in Latino underserved communities:

- State and local governments should work with school administrators to address their liability and other concerns to enable schools to allow access to their facilities for recreational use during non-school hours.
- State and local governments should ensure that SUAs and other statutes, such as recreational user statutes, specifically describe covered activities, terms and conditions.
- State and local governments should encourage awareness of current statutes and the benefits and adoption of SUAs among school administrators.
- School administrators should initiate a partnership with the community to explore the feasibility of and specific options/terms for creating and implementing SUAs
- Local governments and policymakers should solicit community feedback to strengthen the development of new recreation sites and improvements in the built environment.
- Local governments and policymakers should create a Complete Streets policy for all new transportation projects near schools and recreation sites to improve active travel to those sites.
- State and local agencies need to incorporate policies and funding for parks and recreation maintenance and security into the upkeep and improvement of existing sites and the development of new sites to increase use of these sites by community members.

FUTURE RESEARCH NEEDS

To increase access to physical activity sites in Latino communities, further research is needed on the effectiveness of SUAs for increasing physical activity in Latino

communities. Many of the communities with SUAs have reported on challenges and solutions to implementing a SUA, but none provided data on the impact of SUAs on physical activity levels. Therefore, to encourage the implementation of SUAs in more Latino communities, more data are needed to support their effectiveness in increasing physical activity among Latino children. Real and perceived barriers to implementing SUAs should be further explored to identify areas for improvement in policies and legislation and to educate stakeholders on how to overcome the barriers. Specifically, research that documents the cost associated with implementing SUAs for each stakeholder would be beneficial. Research is also needed to evaluate how the built environment and improvements to neighborhood and park infrastructure affect physical activity among Latino youth. Some research has shown these improvements to be effective, but more data would bolster support for funding for improvements, maintenance and security.

The quality of tools that are used for measuring the built environment and their applicability to Latino communities need further evaluation to ensure that decisions about the built environment and physical activity sites are well informed and in the best interest of the Latino community. Finally, more research is needed on the efficacy of social marketing for improving physical activity among Latino youth.

ABOUT THE PROGRAM

Salud America! The RWJF Research Network to Prevent Obesity Among Latino Children is a national program of the Robert Wood Johnson Foundation that develops multimedia communications to educate and motivate our national online network—kids and parents, teachers, academics, and community leaders—to take action to reduce Latino childhood obesity and build a culture of health. The network is directed by the Institute for Health Promotion Research at the University of Texas Health Science Center at San Antonio.

For more information, visit <http://www.communitycommons.org/salud-america>.

ABOUT THIS RESEARCH REVIEW

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Appendix 1

Table 1
Shared Use Agreements (SUAs) Implemented in Latino Communities in California

Program	Location	Involved Parties	Shared Facility	More information
Healthy High Desert	Adelanto, CA	School district city government, including the parks and recreation department	Park developed on previously vacant 5-acre lot adjacent to new elementary school	http://www.jointuse.org/community-4/san-bernadino/
Fremont Wellness Center & Community Garden	South Los Angeles, CA	The Land Trust, University Muslim Medical Student Association and Los Angeles Unified School District	A 2,500-square-foot clinic, greenhouse, gardens, orchard and playground were developed on an abandoned 1.5-acre lot	http://www.jointuse.org/community-4/south-los-angeles-fremont-high-school/ http://www.landtrustalliance.org/about/saving-land/fall-2012/power-of-place
Healthy For Life	Central San Joaquin Valley, CA	Central California Obesity Prevention Program, Healthy For Life	Shared use of Pixley Elementary School and Earlimart Elementary School Schools were opened for use on weekends and summer months providing access to a vacant classroom, soccer field and basketball court	http://www.jointuse.org/community-4/central-valley/
RENEW LA County (Renew Environments for Nutrition, Exercise & Wellness in Los Angeles County)	Los Angeles County, CA	CDC – CPPW program, Los Angeles County Department of Public Health and local schools	Shared use of local schools	http://www.jointuse.org/community-4/los-angeles/
JUGAR (Joint Use Generating Activity and Recreation)	Boyle Heights, CA	RENEW LA and ABC (Alliance for a Better Community)	Shared use of local schools to provide access to dance rooms for Zumba classes, soccer fields and open space for walking clubs	http://www.jointuse.org/community-4/boyleheights/
Oakland Schoolyard Initiative (OSI)	Oakland, CA	Oakland Unified School District	Revitalized 10 schoolyards and adjacent parks to create vibrant, safe places for children to play	http://cpehn.org/sites/default/files/resource_files/jointusebrief2009.pdf
Cajon Valley Middle School	San Diego County, CA	Cajon Valley Unified School District and El Cajon Redevelopment	A new gymnasium/multipurpose building at Cajon Valley Middle School was built to allow public	http://cpehn.org/sites/default/files/resource_files/jointusebrief2009.pdf

		Agency	use of the building and fields	
Neighborhood Sports Initiative	Fruitvale, Oakland, CA	Unity Council, Oakland Fund for Children and Youth and Team Up for Youth	The initiative coordinates sports leagues for youth at the Cesar Chavez Education Center	http://cpehn.org/sites/default/files/resource_files/jointusebrief2009.pdf
Spring Valley RED Club	San Diego County, CA	San Diego County, La Mesa-Spring Valley School District	Constructed a library, gym and teen center on the La Presa Middle School campus	http://cpehn.org/sites/default/files/resource_files/jointusebrief2009.pdf
Muir Sports Field	Pasadena, CA	City of Pasadena and Pasadena Unified School District	A new sports field at John Muir High School including full-size soccer and softball fields	http://www.communitycommons.org/sapolicies/shared-use-agreement-to-bring-new-sports-field-to-latinos-in-pasadena/
Modesto's Health Afterschool Programs	Modesto, CA	Modesto School District and Community Partners	Local golf course used for elementary school student golf lessons and junior high school student soccer training	http://www.ccropp.org/uploads/TC_E_SuccessStories_StanislausCounty.pdf

**Table 2
Toolkits and Resources for Developing Shared Use Agreements**

Organization	Title	Website
ChangeLab Solutions (formerly Public Health Law & Policy)	Playing Smart: A National Joint Use Toolkit	http://changelabsolutions.org/publications/playing-smart
	Opening School Grounds to the Community After Hours: A Toolkit for Increasing Physical Activity Through Joint Use Agreements	http://changelabsolutions.org/publications/CA-JUA-toolkit
	Checklist for Developing a Joint Use Agreement	http://changelabsolutions.org/publications/checklist-developing-joint-use-agreement-jua
Center for Cities & Schools, the University of California, Berkeley	Partnerships for Joint Use: Expanding the Use of Public School Infrastructure to Benefit Students and Communities	http://citiesandschools.berkeley.edu/pubs.html
	Joint Use of Public Schools: A Framework for a New Social Contract	http://citiesandschools.berkeley.edu/pubs.html
Safe Routes to School National Partnership	Shared Use Clearinghouse	http://shareduse.saferoutespartnership.org/